APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/723,080	11/27/2000	Ulrich Hetzer	P00,1839	4251

26574 7590 12/16/2003		EXAMINER
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ART UNIT	PAPER NUMBER
3624	

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	**Applicant(s)**
Office Action Summary	09/723,080	HETZER ET AL.
	Examiner	**Art Unit**
	Lalita M Hamilton	3624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *7*.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Matsushita (5,132,729) in view of Storch (5,367,148).

Matsushita discloses a security article and method comprising the steps of:

generating a device identification number and uniquely allocating said device identification

number to a device **(col.4, lines 1-5** *(first identifying information)* **and fig.1: 40)**; storing said

device identification number and said reference code number range in said device **(fig.1:40 and**

col.4, lines 1-10 *(second identifying information)***)**; aggregating a code number in said code

number range with a replacement consumable **(col.5, lines 25-35 and fig.1:40)**; recognizing a

need to replace a depleted consumable in said device **(col.5, lines 25-35 and fig.1:40)**; before

substituting said replacement consumable for said depleted consumable in said device,

authenticating said replacement consumable by entering said code number aggregated with said

replacement consumable into said device and, in said device, obtaining an authentication result

by checking whether said code number aggregated with said replacement consumable has said

relationship to one of said reference code numbers in said reference code number range stored in

said device and, if so, consuming said one of said reference code numbers in said device **(col.5,**

lines 25-45); controlling said device dependent on said authentication result **(col.5, lines 25-45)**;

allowing substitution of said depleted consumable with said replacement consumable if said code

number aggregated with said replacement consumable has said relationship to one of said

reference code numbers in said reference code number range stored in said device (col.5, lines

25-45); disallowing operation of said device with said replacement consumable if said code

number aggregated with said replacement consumable does not have said relationship to one of

said reference code numbers in said reference code number range stored in said device (col.5,

lines 25-45); allowing operation of said device in a modified manner with said replacement

consumable if said code number aggregated with said replacement consumable does not have

said relationship to one of said reference code numbers in said reference code number range

stored in said device (col.5, lines 25-68); and monitoring consumption of said consumable in

said device by indirectly measuring usage of said consumable, to determine when said

consumable is depleted (col.5, lines 25-68). Matsushita does not disclose generating a code

number range, containing a plurality of code numbers, and allocating said code number range to

said device identification number; generating a reference code number range, containing a

plurality of reference code numbers respectively having relationships to the respective code

numbers in said code number range; or conducting step (b) at a manufacturer of said replacement

consumable, and wherein step (e) comprises aggregating said code number in said code number

range with said replacement consumable during manufacture of said replacement consumable.

Storch teaches a counterfeit detection system comprising generating a code number range,

containing a plurality of code numbers, and allocating said code number range to said device

identification number (col.14, lines 15-50) and generating a reference code number range,

containing a plurality of reference code numbers respectively having relationships to the

respective code numbers in said code number range **(col.14, lines 15-50)**. It is inherent that the

code may be aggregated during manufacturing as a means of eliminating the cost of aggregating

the code once the manufacturing process has been completed. It would have been obvious to one

having ordinary skill in the art at the time the invention was made to incorporate the steps of

generating a code number range, containing a plurality of code numbers, and allocating said code

number range to said device identification number and generating a reference code number

range, containing a plurality of reference code numbers respectively having relationships to the

respective code numbers in said code number range, as taught by Storch into the device and

method disclosed by Matsushita, to add additional protection from infiltration by thieves

numbers.

Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Matsushita and Storch as applied to claim 1 above, and in further view of Brookner

(WO/97/40480).

Matsushita disclose and Storch teaches the invention substantially as claimed and

Matsushita further discloses an indication if and when all of said reference code numbers in said

reference code range stored in said device have been consumed **(col.5, lines 25-45)**; however,

neither reference discloses nor teaches storing the allocation of the device identification number

to said code number range in a data bank at a data center remote from said device; storing the

code number aggregated with said replacement consumable in said data bank associated with

said code number range and said device identification number allocated thereto; upon each

recognition of a need to replace a depleted consumable in said device, and if said code number

has not been entered into said device, establishing a communication between said device and

said remote data center to inform said remote data center of said need to replace said depleted

consumable, and monitoring usage of the consumable represented by said depleted consumable

at said remote data center; accumulating data in said device related to usage of said depleted

consumable and, after establishing communication between said device and said remote data

center, transmitting said data from said device to said remote data center for use in said

monitoring; upon receiving said indication at said remote data center, transmitting a new

reference code number range from said remote data center to said device and reloading said new

reference code number range into said device; or upon receipt of said indication at said remote

data center, transmitting a new group of reference code numbers from said remote data center to

said device and reloading said new group of reference code numbers into said device. Brookner

teaches a system for providing early warning replacement comprising the steps of storing the

allocation of the device identification number to said code number range in a data bank at a data

center remote from said device; storing the code number aggregated with said replacement

consumable in said data bank associated with said code number range and said device

identification number allocated thereto; and upon each recognition of a need to replace a

depleted consumable in said device, and if said code number has not been entered into said

device, establishing a communication between said device and said remote data center to inform

said remote data center of said need to replace said depleted consumable, and monitoring usage

of the consumable represented by said depleted consumable at said remote data center **(p.6, line**

1 to p.7, line 28 *(data center)*); accumulating data in said device related to usage of said depleted

consumable and, after establishing communication between said device and said remote data

center, transmitting said data from said device to said remote data center for use in said

monitoring **(p.6, line 1 to p.7, line 28** *(data center)*); and upon receipt of said indication at said

remote data center, transmitting a new group of reference code numbers from said remote data

center to said device and reloading said new group of reference code numbers into said device

(p.7, lines 15-28). It is inherent that the data center may transmit a new reference code range,

since it is able to transmit other data for the device. It would have been obvious to one having

ordinary skill in the art at the time the invention was made to incorporate the steps of storing the

allocation of the device identification number to said code number range in a data bank at a data

center remote from said device; storing the code number aggregated with said replacement

consumable in said data bank associated with said code number range and said device

identification number allocated thereto; and upon each recognition of a need to replace a

depleted consumable in said device, and if said code number has not been entered into said

device, establishing a communication between said device and said remote data center to inform

said remote data center of said need to replace said depleted consumable, and monitoring usage

of the consumable represented by said depleted consumable at said remote data center;

accumulating data in said device related to usage of said depleted consumable and, after

establishing communication between said device and said remote data center, transmitting said

data from said device to said remote data center for use in said monitoring; and upon receipt of

said indication at said remote data center, transmitting a new group of reference code numbers

from said remote data center to said device and reloading said new group of reference code

numbers into said device, as taught by Brookner into the device disclosed by Matsushita and

taught by Storch, as an alternative means of storing and transmitting data to the device and to

prevent additional cost from having to send the device back to have a new code number stored therein.

Claims 10, 22, and 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsushita, Storch, and Brookner as applied to claim 7 above and 18 below, and in further view of French (EP 0825564 A2).

Matsushita discloses and Storch and Brookner teach the invention substantially as claimed; however, none of the references disclose nor teach the method or steps of: upon receipt of said indication at said remote data center, producing a chip card having a new group of reference code numbers stored therein, physically transporting said chip card to said device, and inserting said chip card into a chip card reader at said device to load said new group of reference code numbers into said device; a printing device having an ink jet print head with an integrated ink tank containing ink, said ink comprising said consumable; the device is a postage meter machine having a printer which produces a plurality of franking imprints, thereby consuming said consumable, and wherein said microprocessor monitors a number of said franking imprints which occur between each replacement of said consumable, and wherein said microprocessor uses said number of franking imprints as a basis for producing said authentication result; said microprocessor generates a message for display on said display if said authentication result indicates an unauthorized replacement; said device has a chip card reader connected to said microprocessor, said chip card reader receiving a chip card therein, and wherein said microprocessor establishes a communication to a remote location, dependent on said authentication result, upon insertion of said chip card into said chip card reader; or said postage meter machine requires periodic credit reloading, and wherein said microprocessor

establishes a communication to a remote location in conjunction with a credit reloading and

reports said authentication result in said communication. French teaches a remote system

inspection of a value dispensing mechanism comprising upon receipt of said indication at said

remote data center, producing a chip card having a new group of reference code numbers stored

therein, physically transporting said chip card to said device, and inserting said chip card into a

chip card reader at said device to load said new group of reference code numbers into said device

(col.3, lines 20-42 *(removable chip that can be downloaded remotely or locally)*); a printing

device having an ink jet print head with an integrated ink tank containing ink, said ink

comprising said consumable (col.3, lines 20-25 and fig.1: 5); the device is a postage meter

machine having a printer which produces a plurality of franking imprints, thereby consuming

said consumable, and wherein said microprocessor monitors a number of said franking imprints

which occur between each replacement of said consumable, and wherein said microprocessor

uses said number of franking imprints as a basis for producing said authentication result (col.3,

lines 20-56); said microprocessor generates a message for display on said display if said

authentication result indicates an unauthorized replacement (col.4, lines 5-15); said device has a

chip card reader connected to said microprocessor, said chip card reader receiving a chip card

therein, and wherein said microprocessor establishes a communication to a remote location,

dependent on said authentication result, upon insertion of said chip card into said chip card

reader (col.3, lines 20-42 *(removable chip that can be downloaded remotely or locally)*); and

said postage meter machine requires periodic credit reloading, and wherein said microprocessor

establishes a communication to a remote location in conjunction with a credit reloading and

reports said authentication result in said communication (col.3, lines 30-58). It would have been

obvious to one having ordinary skill in the art at the time the invention was made to incorporate

the device and steps of upon receipt of said indication at said remote data center, producing a

chip card having a new group of reference code numbers stored therein, physically transporting

said chip card to said device, and inserting said chip card into a chip card reader at said device to

load said new group of reference code numbers into said device; a printing device having an ink

jet print head with an integrated ink tank containing ink, said ink comprising said consumable;

the device is a postage meter machine having a printer which produces a plurality of franking

imprints, thereby consuming said consumable, and wherein said microprocessor monitors a

number of said franking imprints which occur between each replacement of said consumable,

and wherein said microprocessor uses said number of franking imprints as a basis for producing

said authentication result; said microprocessor generates a message for display on said display if

said authentication result indicates an unauthorized replacement; said device has a chip card

reader connected to said microprocessor, said chip card reader receiving a chip card therein, and

wherein said microprocessor establishes a communication to a remote location, dependent on

said authentication result, upon insertion of said chip card into said chip card reader; or said

postage meter machine requires periodic credit reloading, and wherein said microprocessor

establishes a communication to a remote location in conjunction with a credit reloading and

reports said authentication result in said communication, as taught by French into the device and

method disclosed by Matsushita and taught by Storch and Brookner, to allow for the chip card to

be removed and uploaded with new code numbers to cut down on the replacing the device and to

provide a postage meter machine that allows for credit reloading from a remote location to cut

down on the cost of manual reloading.

Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsushita and Storch as applied to claim 1 above, and in further view of French.

Matsushita discloses and Storch teaches the invention substantially as claimed; however, neither reference discloses nor teaches the method of aggregating said code number with said replacement consumable by storing said code number in a chip card and physically associating said chip card with said replacement consumable; additionally storing in said chip card a plurality of quantities related to usage of said replacement consumable during operation of said device; entering said code number aggregated with said replacement consumable into said device via said user interface; permanently affixing said code number to said replacement consumable in a manner allowing said code number to be identified for entry into said device via said user interface; or affixing said code word to said replacement consumable dependent on a physical nature of said replacement consumable. French teaches a remote system inspection of a value dispensing mechanism comprising the steps of aggregating said code number with said replacement consumable by storing said code number in a chip card and physically associating said chip card with said replacement consumable **col.3, lines 20-42** *(removable chip that can be downloaded remotely or locally)*); additionally storing in said chip card a plurality of quantities related to usage of said replacement consumable during operation of said device **col.3, lines 20-42** *(removable chip that can be downloaded remotely or locally)*); entering said code number aggregated with said replacement consumable into said device via said user interface **(col.3, lines 20-40; col.4, lines 1-15; col.6, lines 25-58)**; permanently affixing said code number to said replacement consumable in a manner allowing said code number to be identified for entry into said device via said user interface **(col.3, lines 20-40; col.4, lines 1-15; col.6, lines 25-58)**; and

affixing said code word to said replacement consumable dependent on a physical nature of said

replacement consumable (col.3, lines 20-40; col.4, lines 1-15; col.6, lines 25-58). It would have

been obvious to one having ordinary skill in the art at the time the invention was made to

incorporate the method of aggregating said code number with said replacement consumable by

storing said code number in a chip card and physically associating said chip card with said

replacement consumable; additionally storing in said chip card a plurality of quantities related to

usage of said replacement consumable during operation of said device; entering said code

number aggregated with said replacement consumable into said device via said user interface;

permanently affixing said code number to said replacement consumable in a manner allowing

said code number to be identified for entry into said device via said user interface; and affixing

said code word to said replacement consumable dependent on a physical nature of said

replacement consumable, as taught by French into the device and method disclosed by

Matsushita and taught by Storch, to allow for additional protection against would-be thieves in

value dispensing devices.

Claims 18, 20, and 25 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Matsushita in view of Storch and Brookner.

Matsushita discloses a security article and method comprising at least one sensor for

monitoring usage of a consumable in a device, said sensor emitting a sensor signal (col.5, lines

23-68 *(determines when unit has come to end of life)*); a microprocessor in said device supplied

with said sensor signal and identifying a need for replacement of said consumable before actual

replacement of said consumable is necessary (col.4, lines 1-15 and col.5, lines 25-68); a memory

accessible by said microprocessor in which a reference code number range is stored (col.4, lines

1-15 and col.5, lines 25-68); an input unit connected to said microprocessor, said

microprocessor, upon generating said message, waiting for entry, via said input unit, of a code

number and, upon entry of said code number via said input unit, said microprocessor producing

an authentication result dependent on whether said code number has said relationship to one of

said reference code numbers in said memory (col.5, lines 25-68); said microprocessor controlling

operation of said device dependent on said authentication result (col.5, lines 25-68); and the

device consumes a solid consumable (fig.1: 40 and col.3, lines 14-21). It is inherent that a

sensor may physically interact with the consumable, since it is physically located within the

consumable. Matsushita does not disclose a display connected to said microprocessor, said

microprocessor generating a message on said display indicating said need for replacing said

consumable or said reference code number range containing a plurality of reference code

numbers respectively having relationships to code numbers representing an authorized

replacement consumable. Storch teaches a counterfeit detection system comprising a reference

code number range containing a plurality of reference code numbers respectively having

relationships to code numbers representing an authorized replacement consumable (col.14, lines

15-50). Brookner teaches a system for providing early warning replacement comprising a

display connected to said microprocessor, said microprocessor generating a message on said

display indicating said need for replacing said consumable (p.7, line 29 to p.8, line 6 *(display*

prints data to user)). It would have been obvious to one having ordinary skill in the art at the

time the invention was made to incorporate a plurality of reference codes, as taught by Storch

into the device and method disclosed by Matsushita, to prevent would-be thieves accessing the

system. It would have been obvious to one having ordinary skill in the art at the time the

invention was made to incorporate a display for generating a message indicating a need for

replacing the consumable, as taught by Brookner into the device disclosed by Matsushita, to

allow the user to be able to replace the consumable in an sufficient amount of time.

Claims 19, 21, and 23-24 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Matsushita, Storch, and Brookner as applied to claims 18 and 20

above, and in further view of Philips (WO 98/04414).

Matsushita discloses and Storch and Brookner teach the invention substantially as

claimed; however, none of the references disclose nor teach a printing device having an inking

ribbon in a cassette, as said consumable, and wherein said sensor comprises an encoder which

interacts with said cassette; a printing device having an interchangeable ink tank cassette

containing electrically conductive ink as said consumable, and wherein said sensor comprises

electrical contacts interacting with said electrically-conductive ink to identify an amount of said

electrically conductive ink in said ink tank cassette; a device which consumes a liquid as said

consumable, said liquid being packaged in packaging material having an identifier thereon

usable as said code number; or a device which consumes a non-solid aggregate state consumable.

Philips teaches a printing device comprising having an inking ribbon in a cassette, as said

consumable, and wherein said sensor comprises an encoder which interacts with said cassette

p.3, lines 18-24 and fig.1: 6); a printing device having an interchangeable ink tank cassette

containing electrically conductive ink as said consumable, and wherein said sensor comprises

electrical contacts interacting with said electrically-conductive ink to identify an amount of said

electrically conductive ink in said ink tank cassette **(p.3, lines 30-33 and p.5, lines 1-15)**; a

device which consumes a liquid as said consumable, said liquid being packaged in packaging

material having an identifier thereon usable as said code number (p.4, line 23 to p.5, line 15); and a device which consumes a non-solid aggregate state consumable (p.4, line 23 to p.5, line 15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a printing device having an inking ribbon in a cassette, as said consumable, and wherein said sensor comprises an encoder which interacts with said cassette; a printing device having an interchangeable ink tank cassette containing electrically conductive ink as said consumable, and wherein said sensor comprises electrical contacts interacting with said electrically-conductive ink to identify an amount of said electrically conductive ink in said ink tank cassette; a device which consumes a liquid as said consumable, said liquid being packaged in packaging material having an identifier thereon usable as said code number; and a device which consumes a non-solid aggregate state consumable, as taught by Philips into the device and method disclosed by Matsushita and taught by Storch and Brookner, to provide the device with a means of leaving a permanent coded imprint on a device.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamamoto (5,786,828) teaches a detachable consumable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lalita M Hamilton whose telephone number is (703) 306-5715. The examiner can normally be reached on Tuesday-Thursday (8:30-4:30).

The fax phone number for the organization where this application or proceeding is assigned is (703) 746-6101.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

2272.

LMH

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